

EDITORIALS

Welcome WSMA

BY ACTION of the Washington State Medical Association's House of Delegates the members of the Association will receive THE WESTERN JOURNAL OF MEDICINE as a benefit of their membership beginning with this issue. The editors welcome the nearly 5,000 new readers in Washington state to the growing *WJM* family. The *WJM* now serves as the official journal of the Idaho, Nevada, California and Washington medical associations, and as such it is truly a unique regional journal. This uniqueness, and growing strength, lies in the genuine roots the journal is establishing in state medical associations in the West.

The *WJM* seeks to be a truly useful journal for its readers, the greatest number of whom are practitioners. It seeks to offer a variety of fare which also will include something of interest for students, academicians, researchers and even political leaders of our profession—of whom there are many among its readers. It seeks to reflect the vitality and achievements in science, education and practice that are hallmarks of medicine in the West, and to give these a stronger presence in the medical literature. The editors, the editorial board and many others are dedicated to making this journal a regional instrument of physician education and continuing education in the West, and also an increasingly distinguished journal on the national scene.

The Washington State Edition will contain an innovation. For WSMA readers only there will be an insert prepared by the WSMA staff under the direction of the Special Editor for Washington. This insert will contain material of special interest to WSMA members and will serve as an important additional means of communication between WSMA and its membership.

We welcome WSMA. We look forward to a long and productive association which should be of great benefit to all concerned.

—MSMW

Allergic Bronchopulmonary Aspergillosis

AN IMPORTANT ARTICLE by Novey and Wells in this issue focuses on the increasing emergence of the disease allergic bronchopulmonary aspergillosis (ABPA). Described in England 26 years ago¹ and first reported in the United States 10 years ago,² an increasing number of cases is being identified throughout the United States. The study of Novey and Wells shows that a concentrated search for cases will result in recognition of previously unidentified cases. Therefore, a phase of awareness and recognition of the disease state has been achieved by alert investigators at some institutions and in practice. There are multiple curious and interesting facets of ABPA to be mentioned in this editorial. One of these is that some institutions with large clinical services have not yet identified cases of ABPA. In a recent discussion of the disease, a comment was overheard: "Oh, that is just one of those rare University-type diseases." The study by Novey and Wells clearly shows that ABPA is not rare and constitutes a significant medical problem in California. It must be emphasized that ABPA is not benign.

Early recognition is difficult because of a lack of criteria for specific diagnosis and those serologic tests most appropriate may only be available in specialized centers. However, early recognition appears important because of the potentiality for progression of ABPA to serious irreversible lung destruction. The late stage pulmonary involvement includes both the curious central bronchiectasis and pulmonary fibrosis with irreversible end-stage lung disease. The most important factor in diagnosis is suspicion of the possibility of the disease. Early cases of ABPA often will not have all of the characteristic clinical and laboratory findings of pulmonary infiltrates, pronounced peripheral eosinophilia, sharply elevated total serum IgE and

bronchiectasis. In patients with early ABPA, x-ray studies of the chest may show no abnormalities and asthma may be extremely mild, requiring only occasional bronchodilator therapy. It is our opinion that the possibility of ABPA must be considered in every asthmatic person, and the presence of ABPA can likely be excluded by showing the absence of immediate skin reactivity to aspergillus antigen. A positive skin test should lead to further investigation including a total serum IgE determination and search for precipitating antibodies against aspergillus antigen. It may be suggested at this time that reasonable, if not final, serologic diagnostic aids are and will be increasingly available. One of these diagnostic aids is the measurement of total serum IgE and IgG antibodies against *Aspergillus fumigatus* antigen.³

Although multiple therapies for ABPA have been attempted, prednisone therapy appears to be the treatment of choice. This results in clearing of lesions shown on x-ray studies of the chest and disappearance of clinical symptomatology. The duration of therapy required is uncertain and is under study. In certain patients, after prednisone dosage has been tapered and discontinued, there will be exacerbations of ABPA. In other patients in our study, therapy with steroids has been discontinued for prolonged periods without exacerbations. Consequently, commitment to permanent administration of steroids as a prevention of exacerbations does not seem appropriate in all patients.

The identification of the disease in the young population described by Novey and Wells is of importance. One of the questions about ABPA is what happens to patients who have not been diagnosed with ABPA which occurs in their youth. We have recently learned of a clearly diagnosed case of ABPA in which the first episode of pulmonary infiltrates with pronounced eosinophilia was documented 36 years previously. The patient now has end-stage fibrotic lung disease. It is to prevent this type of problem that ABPA must be identified early.

Some of the many curiosities and questions about ABPA that remain unanswered are as follows: The spores of the genus *Aspergillus*, a common saprophytic fungus, are a common aeroallergen; why does ABPA develop only in certain asthmatic persons? No defect in lymphocyte reactivity, polymorphonuclear function or monocytic function has been shown in these patients. What character-

istics of *A. fumigatus* lead to this organism being so significant in causing ABPA, aspergillomas and disseminated aspergillosis in immunosuppressed patients? The organism is also incriminated as the cause of abortions in sheep and cattle through unknown mechanisms. The elevation in total serum IgE which occurs in patients with ABPA is unexplained. This elevation in total serum IgE may be dramatic, reaching 70,000 ng per ml in some patients (the laboratory normal value is approximately 100 ng per ml). It has been shown that all of this IgE is not IgE antibody directed against antigens of *A. fumigatus*.⁴ The elevated serum IgE declines dramatically with prednisone therapy in patients with ABPA but the mechanism of action of prednisone which results in clinical improvement of ABPA and the decline in total serum IgE is not clearly explained.

The immunologic mechanisms of the production of the pulmonary infiltrates, the central bronchiectasis and progressive fibrosis, are unclear. The organisms colonize the airways and antigens are undoubtedly released in the airways. The reaction of IgE antibodies against aspergillus antigens with the antigens present in the airways likely is important and mediators released from mast cells may permit passage of antigens through the bronchial epithelium. The IgG precipitating antibodies may produce an antigen-antibody complex reaction within pulmonary tissue, perhaps aided by the IgE mediated absorption of aspergillus antigen. The role of lymphocytes remains uncertain. Lymphocyte transformation occurs when lymphocytes in whole blood from patients with ABPA are stimulated by aspergillus antigen. Separated lymphocytes from some patients with ABPA do not respond to aspergillus antigen by lymphocyte transformation. Lymphocyte mediated damage has not been clearly shown or excluded.

Based on the article by Novey and Wells, it appears that different disease patterns of ABPA may appear seasonally, geographically and in relation to environmental exposure. Novey and Wells have identified ABPA in farm areas, suggesting environmental exposure in some patients and a prevalence for occurrence in the fall and winter months in California. In Chicago, we have identified a population in an urban area with little correlation with any environmental exposure and a probable prevalence of exacerbations of ABPA from the spring through the fall. This season, of course, is a period when there is an absence of snow cover in the Chicago environment and a

higher concentration of mold spores in the environment.

A most interesting possibility is raised by the Novey and Wells paper. Having identified ABPA as an important disease in California, it would be of interest if Dr. Novey was informed of how many further cases of ABPA were identified in the western states by the thousands of physicians who have read *THE WESTERN JOURNAL OF MEDICINE* and his report.

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Of Cults and Armageddon

THE RECENT gruesome events at Jonestown in Guyana remind us how little we understand about some aspects of human nature and human behavior. How more than 900 persons of all ages could engage in a planned, even rehearsed, ritual of murder and suicide defies comprehension in our present state of knowledge. As far as is known such an occurrence on such a scale is unprecedented in modern times. The awful thought arises that what has happened once can happen again, perhaps on an even larger scale, unless somehow we can gain a better understanding of this human aberration, and find better means of detecting it in an early stage and instituting effective prevention.

It is not really known whether there is some inborn weakness or defect which may make some persons susceptible and others not, whether there is something about a person's life experience or whether there is a form of psychological contagion which in a sense might infect persons. In some individual instances of murder and suicide insanity clearly plays a role, but not in all. There are instances in which both killing and suicide are rational acts—in self-defense or to avoid further suffering that is simply unbearable, for example. But neither individual insanity in so many persons at one time and in one place, or murder and suicide as rational acts, seem adequate to explain the horror of Jonestown. It seems

that there must have been some element of contagious aberration which so affected more than 900 persons that they saw this evidently planned and to us unbelievable ritual of murder and suicide as, for them, a rational and presumably necessary act.

In this context one cannot help but think of the murderous atrocities perpetrated against the Jewish people in Hitler's Germany and the ultimate apparent suicide of the leader of the Nazi cult. Germany and the German people had seemed to be among the most sane and rational of peoples and yet they were somehow swept along by a charismatic and irrational leader who imposed his murderous irrationality upon that apparently most civilized nation. One cringes at the thought of what might have happened had that leader, who by this time was obviously insane, been in possession of the power to make his suicide global by pressing a button that would have released a holocaust of worldwide nuclear destruction. In such a circumstance, which we understand is technically possible today, Armageddon could be a reality.

Cults tend to form around charismatic leaders and charismatic leaders are often somehow not like other people. There is an infectiousness in their leadership that spreads among their followers and gives them power which can extend to life and death for their followers and for others. Perhaps the Jonestown experience is telling us something. It could be a warning that unless we find ways to understand the murderous and suicidal aberrations that can occur in charismatic leaders and their cults, find better means for their early diagnosis, and discover how to institute timely and effective prevention or countermeasures, Armageddon might just happen as a result of this poorly understood human aberration in persons in positions of great power. It would seem none too soon to begin the process of more certain prevention of this unthinkable but nevertheless quite possible circumstance.

—MSMW

Intussusception

THIS ISSUE of the *WESTERN JOURNAL* contains a Specialty Conference on the important topic of intussusception, to which this editorial will refer.

There will be general agreement today that a barium enema study is the conclusive diagnostic test when intussusception is suspected and that it should be undertaken in the expectation of apply-